

REMARKS

Pursuant to the present amendment, claims 15 and 26 have been amended and claims 1-14, 16-19 and 22-25 have been canceled. Thus, claims 15, 20-22 and 26 are pending in the present application. No new matter has been introduced by way of the present amendment. Reconsideration of the present application is respectfully requested in view of the amendments and arguments set forth herein.

In the Office Action, claims 1-4, 6, 7, 13-16, 20 and 26 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Bode (U.S. Patent Publication No. 2002/0106821). Claims 1-3, 5, 13-15, 17, 19, 23, 24 and 26 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Miller (U.S. Patent No. 6,259,521). Claims 1-26 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Park (U.S. Patent Publication No. 2002/0001070). Claims 1, 3, 5, 6, 7, 13-15, 17, 19, 23, 24 and 26 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Luhn (U.S. Patent Publication No. 2002/0012861). Applicants respectfully traverse the Examiner's rejections.

As the Examiner well knows, an anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). To the extent the Examiner relies on principles of inherency in making the anticipation rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*, 231 U.S.P.Q. 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should

have, or would have been used as the claimed invention. “The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Oelrich*, at 326, quoting *Hansgirg v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789. “Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Skinner*, at 1789, citing *Oelrich*. Where anticipation is found through inherency, the Office’s burden of establishing *prima facie* anticipation includes the burden of providing “...some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Skinner* at 1789.

Moreover, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

Pursuant to the present amendment, independent claim 15 has been amended to recite the step of:

updating said exposure map for a plurality of specified locations on a specified one of said substrates on the basis of:

inline measurement data obtained from one or more of said substrates, wherein at least a portion of said inline measurement data is obtained from substrates prior to exposure and from substrates after exposure; and

electrical measurement data related to said circuit feature after said circuit feature is completed;

It is respectfully submitted that the prior art of record does not disclose or suggest the invention defined by the entirety of amended independent claim 15.

Bode is understood to be directed to a method of compensating for across-wafer variations. Abstract. In one example, this is accomplished by varying the exposure dose on a flash-by-flash basis as the stepper progresses across the wafer. ¶¶ 34-35; Figure 4. However, at no point does Bode disclose or suggest the detailed methodology now recited in independent claim 15.

Miller is directed to a method of controlling uniformity in a wafer. Abstract. To that end, Miller discloses a method whereby a portion of a patterned layer of photoresist is illuminated in at least first and second positions. Col. 2, ll. 12-17. Reflected light is measured at the few positions to generate first and second measurements. The recipe of the stepper is adjusted if the first measurement differs from the second measurement. Col. 2, ll. 17-21. Miller certainly does not disclose or suggest the detailed methodology now set forth in amended independent claim 15.

Park is directed to a system for adjusting photo exposure time. The system disclosed therein obtains information from a pre-expose step process as well as information from a process performed after development of the resist layer (ADI). Figure 1. However, at no point does Park suggest the entirety of the invention defined by amended independent claim 15. More specifically, there is no disclosure nor even the slightest suggestion in Park of updating the exposure map based upon the combination of inline measurement data and electrical data from the circuit device after it is formed, as now recited in claim 15. Accordingly, it is respectfully submitted that Park does not anticipate nor render obvious the invention defined by independent claim 15.

Luhn is understood to be directed to a method of controlling photolithographic processes. More particularly, in Luhn, measured line width errors and/or positional errors obtained from processed substrates are used to calculate correction values for the exposure integrity and/or xy positioning of the semiconductor wafer. Luhn, like the other prior art of record, is simply silent with respect to the entirety of the claimed invention as now set forth in amended independent claim 15.

In view of the foregoing, it is respectfully submitted that independent claim 15, and all claims depending therefrom, are in condition for immediate allowance.

Independent system claim 26 is likewise believed to be allowable for the reasons set forth above with respect to independent claim 15.

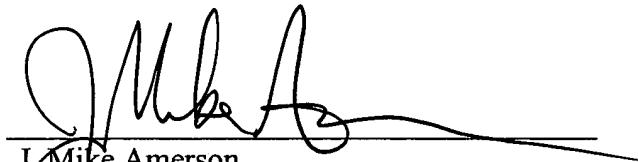
All claims are believed to be in condition for immediate allowance. As shown above, the prior art of record does not anticipate nor render obvious the pending claims. It is respectfully submitted that any attempt to assert that the pending claims are obvious in view of the prior art of record necessarily constitutes an improper use of hindsight using Applicants' disclosure as a roadmap. A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

In view of the foregoing, it is respectfully submitted that all pending claims are in condition for immediate allowance. The Examiner is invited to contact the undersigned attorney

at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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Date: April 26, 2005

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